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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/691,199

10/22/2003

Peter Mardilovich

100204895-1

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11/28/2007

HEWLETT PACKARD COMPANY

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INTELLECTUAL PROPERTY ADMINISTRATION

FORT COLLINS, CO 80527-2400

EXAMINER

CHEN, BRET P

ART UNIT

PAPER NUMBER

1792

MAIL DATE

DELIVERY MODE

11/28/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/691,199

Applicant(s)

MARDILOVICH ET AL.

Examiner

B. Chen

Art Unit

1792

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 9/12/07.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-33 and 44-48 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-33 and 44-48 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

Claims 1-33, 44-48 are pending in this application. Newly added claims 47-48 are noted.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 48 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In claim 48, the temperature range of "344°C and 590°C" is deemed new matter as there is no support for same in the original specification as filed.

#### ***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

**Claims 1-33, 44-46, 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Darolia et al. (2003/0152797) for the reasons listed in the previous office action.**

**Claim 47 is rejected under 35 U.S.C. 103(a) as being unpatentable over Darolia et al. (2003/0152797) in view of Hackh's Chemical Dictionary. Darolia discloses a method of**

forming a thermal barrier coating by diffusing a platinum group metal from a co-deposited ceramic composition to the surface as noted above. However, the reference fails to teach gold, nickel, copper, silver.

In newly added claim 47, the applicant eliminates platinum, palladium, rhodium, and ruthenium as the diffusing metal. It is noted that the Darolia specifically teaches the diffusing metal as a platinum group metal which includes platinum, ruthenium, rhodium, palladium (paragraph 25). It is further noted in the background that noble metals such as platinum can be utilized (paragraph 9). It is well known in the art that other noble metals include gold, platinum, or palladium (see Hackh's Chemical Dictionary). It would have been obvious to incorporate other noble metals as defined by Hackh's in the process of Darolia with the expectation of obtaining similar results.

#### ***Response to Arguments***

Applicant's arguments filed 9/12/07 have been fully considered but they are not persuasive.

Applicant argues that Darolia fails to teach diffusing to a ceramic film surface (p.9).

The examiner disagrees. It is noted that the reference clearly teaches of diffusing the metal into an outer portion (paragraph 12). It is the examiner's position that an outer portion reads on the claimed film surface.

Applicant next argues that pores would not be formed in Darolia (p.10).

The examiner disagrees. It is noted that independent claim 1 specifically recites diffusing a metal from a co-deposited metal and ceramic film on a substrate to form the porous film.

Darolia teaches same. It would inherently have to produce a porous film absent a teaching not presently recited in the instant claim.

Applicant next argues that Darolia does not teach the specific ceramic materials (pp. 1—11).

The examiner agrees in part. While the specific materials are not taught in the cited reference, motivation to utilize same has been provided. For example, Darolia specifically teaches a metal which which diffuses through a co-deposited film which contains a metal and ceramic. One skilled in the art would reasonably expect that the diffusion would occur regardless of the specific ceramic material. Applicant has not shown any factual evidence to the contrary.

Applicant's arguments have been considered but are not deemed persuasive.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

Application/Control Number:  
10/691,199  
Art Unit: 1792

Page 5


however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to B. Chen whose telephone number is (571) 272-1417. The examiner can normally be reached on 7:30am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on (571) 272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Bc  
11/26/07

  
BRET CHEN  
PRIMARY EXAMINER